1979 NATIONAL PRO RALLY RULES

Sports Car Club of America, Inc.
P. O. Box 22476
Denver, Colorado 80222

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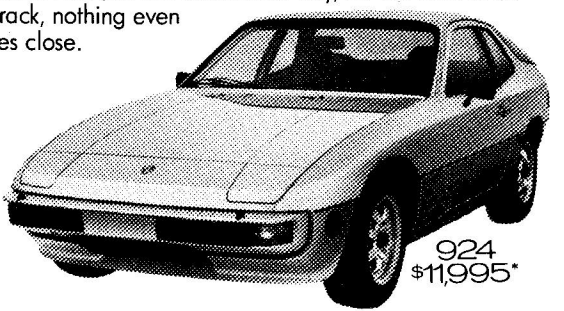

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NATIONAL PRO RALLY RULES

1979 EDITION

Sports Car Club of America, Inc.
P. O. Box 22476
Denver, Colorado 80222

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FOREWORD

Effective January 1, 1979, all SCCA Pro Rally Rules are superseded by the following SCCA National Pro Rally Rules.

The SCCA reserves the right to revise these Rules, to issue supplements to them at any ime, and to promulgate special rules in emergency.

This book is the property of

Name .....

Address .....

City .....

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Region .....

NATIONAL PRO RALLY RULES
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1979 SCCA
NATIONAL PRO RALLY RULES

1. PURPOSE

The purpose of the Sports Car Club of America, Inc. (SCCA) National Pro Rally Championship Series is to encourage participation in and support of, on a national basis, rallies offering a driving challenge. The rallies in this series will follow a format as closely as possible as those counting toward the Federation Internationale de l'Automobile (FIA) International Rally Championship for Makes. However, safety and state regulations will be of key importance in competing in and staging of these events.

2. ADMINISTRATION

2.1 SCCA Pro Rally Board

A. The SCCA Pro Rally Board shall be responsible for the development of rules and standards for the conduct of National Pro Rallies and shall establish, supervise and administer an annual program of events. The Board shall have final authority on all events.

B. The Pro Rally Board shall further be responsible for the regulations and rules for the conduct of Federation Internationale de l'Automobile (FIA)-listed rallies sanctioned by the SCCA.

C. The SCCA Board of Governors annually shall appoint a Chairman and up to three other members to the Pro Rally Board.

2.2 Rally Director

The Rally Director shall be responsible for the administration of the SCCA Pro Rally program.

2.3 Delegation of Powers

A. The Pro Rally Board shall have the right to delegate powers and appoint such personnel as may be required to

effect its purposes and to assign duties and powers to them.

B. An Executive Pro Rally Steward shall be appointed by the Pro Rally Board in each SCCA Division, subject to approval of the Governor(s) of the Division, for the purpose of coordinating and administering the SCCA Pro Rally program in the Division.

3. PRO RALLY RULES AND RULES FOR ORGANIZERS

3.1 Rules

These Rules shall govern all SCCA National Pro Rallies eligible to contribute points towards the National Pro Rally Championship.

3.2 Rules for Organizers

A set of Rules for Organizers of SCCA Pro Rallies shall be available and shall be used for their organization and conduct. Organizers are responsible to the Pro Rally Board for adherence to the Rules for Organizers, available from the SCCA Rally Director. The Rules for Organizers shall not serve as a basis for claim by contestants.

3.3 Revision of Regulations and Rules

The Pro Rally Board reserves the right to make such changes in these Rules and appendices as may be deemed necessary or advisable.

4. ACCEPTANCE OF REGULATIONS AND RULES

4.1 By the Rally Committee

Each rally committee that undertakes to organize an SCCA National Pro Rally shall be deemed to be acquainted with these Rules and with the Rules for Organizers and shall be bound by them.

4.2 By the Contestants

Each participant in an SCCA National Pro Rally shall be deemed to be familiar with these Rules and shall be bound by them; his participation shall constitute evidence of his accep-

tance of this provision.

5. SCCA PRO RALLY SANCTION

In order to be eligible for inclusion in the SCCA National Pro Rally Championship Series, a proposed event must be sanctioned by the SCCA Rally Board. An SCCA Region applying for an event sanction shall submit to the Pro Rally Board, via the Rally Director, a detailed description of the proposed event, including requests for any exceptions to these Rules. Evidence must also be submitted indicating that one or more key members of the rally committee is an experienced competitor in events of this type and has demonstrated ability as an organizer of a major rally.

The Pro Rally Board foresees that some new and unproven events will require pre-checks. When the Pro Rally Board deems a pre-check necessary, prior to granting sanction, it will be the organizing Region's responsibility to supply out-of-pocket expenses and transportation if necessary, for the pre-checker to inspect the rally. The Region's responsibility for pre-check expenses shall not exceed $100. The Pro Rally Board or its designated authority will appoint the official pre-checker.

The Pro Rally Board specifically reserves the right to refuse sanction or a sanctioned event may have its sanction revoked if the rally appears not to conform with required standards. Application for National Pro Rally sanction status or acceptance of it by any SCCA Region shall constitute recognition of these rights.

Sanction fee for a National Pro Rally shall be $7.50 per starting car with a $150 minimum fee. The minimum fee shall be submitted to the Rally Director along with sanction request at least 90 days prior to the scheduled date.

In any one calendar year there shall be no more than 12 events sanctioned counting toward the National Pro Rally Series Championship.

6. ENTRY REQUIREMENTS

6.1 Entry Blank

Application for entry in an SCCA National Pro Rally shall be made by means of the official entry form approved by the Pro Rally Board. Forms are available from the SCCA Rally Director. The form shall contain or be accompanied by full instructions for its submission which shall mention the date of closing of entries. An entry blank for each rally shall be sent to all Pro Rally license holders. The current mailing list is available from the SCCA Rally Director.

6.2 Number of Contestants per Crew

Each car participating in an SCCA National Pro Rally shall have two and only two occupants. Substituting, for any reason, another person or vehicle after starting the event shall result in a score of DNF (did not finish) for the car and its crew members.

6.3 Non-Members

A rally committee may permit non-SCCA member crews to enter and participate in an SCCA National Pro Rally. Such crews shall be eligible to win money and receive awards, but are ineligible for National Pro Rally Championship points.

6.4 Drivers' Licenses and Competitors' Licenses

All competitors must hold a valid automobile operator's license for the state in which they reside. A learner's permit shall not constitute a valid license.

All competitors in an SCCA National Pro Rally must hold one of the following licenses, which must be currently valid and available for inspection during the event:

1. FIA driver's license
2. SCCA National Pro Rally license
3. CASC Canadian National Rally license (Canadian citizens only).

For citizens of the United States, only FIA driver's licenses issued by the SCCA, and so stamped, will be ac-

cepted under the first category listed above. In addition, all competitors and entrants in FIA-listed SCCA Pro Rallies must hold valid FIA driver's and/or entrant's licenses.

Application forms for FIA driver's licenses, FIA entrant's licenses and SCCA Pro Rally licenses are available from the SCCA Rally Director. Such licenses will be issued by the SCCA National Office upon receipt of a properly completed application form and payment of appropriate fees.

6.5 Vehicle Registration

As evidence that the car entered is on the road legally and is either owned by the entrant or is being used by the entrant with the permission of the owner, the car registration certificate or the certificate of ownership must be available for inspection by officials before the start of the rally and at any time during its progress.

6.6 Vehicle Eligibility

1. Open Class—All street licensed four-wheel vehicles.
2. Production Class—Street licensed vehicles listed in Appendix A complying with the Production Class rules.

6.7 Liability Releases

All entrants, service crew members, rally committee members and workers in an SCCA National Pro Rally must sign a waiver, in such form as may be prescribed by the Pro Rally Board and/or the rally committee, releasing all parties designated in the waiver from any and all liability of any nature whatsoever in connection with the event.

6.8 Commercial Advertising

All competing vehicles in an SCCA National Pro Rally may be required to carry event sponsor advertising supplied by the organizers.

Commercial advertising in good taste is allowed on any vehicle.

All competing vehicles in an SCCA National Pro Rally are required to display one 4½-inch diameter SCCA wire wheel decal in a visible location on each side of the vehicle.

6.9 Refusal of Entry

SCCA reserves the right to bar any member or non-member from participating in the SCCA National Pro Rally series. A rally committee shall have the authority to accept or reject any entry. If an entry is refused, notification of such refusal shall be sent to the entrant at the address given on the entry form as soon as possible.

7. ENTRY FEES

Entry fees are to be set by the conducting Region and the fee spelled out in the event's general announcement.

8. SAFETY INSPECTION

Each car entered in an SCCA National Pro Rally shall be required to pass a safety inspection within the 24-hour period immediately preceding the start of the event at a suitable location designated by the committee. Items to be checked will be spelled out in the event's supplementary regulations. Cars may be subject to inspection at any time during conduct of the event by the rally committee. Cars found to be unsafe will be barred from further competition in the event.

The inspectors shall conduct the safety inspection in accordance with the standards prescribed by the rally committee. As a *minimum* requirement, the following vehicle equipment shall be operable and in safe condition:

1. Headlights (high and low beams) and parking lights
2. Taillights and stoplights
3. Horn, windshield wipers and directional signals
4. Rear-view mirror
5. Footbrakes (to be subjected to a moving brake test) and parking brake (to be tested for holding ability)
6. Tires, including spare, to be inspected for condition of sidewalls as well as tread and for absence of metal protruding from tread. Studded tires and similar tires containing metal protruding from the tread area are prohibited on National Pro Rally events.
7. Roll bar meeting current FIA or SCCA specifications. SCCA specifications are listed in Appendix Z of these rules. (Diagonal bracing in the SCCA specifications

will not be required). Roll cages are recommended in all vehicles. Contestants wishing to build a roll bar or roll cage to FIA specifications must provide evidence of compliance with these specifications at all Pro Rally safety inspections.

8. It is recommended that a noise check be conducted at safety inspection at each event. If the noise check is conducted, the maximum allowable level cannot be set lower than 86 dba. The noise emitted by a vehicle during stationary engine run-up to 4000 rpm, momentary hold at 4000 rpm, and closed throttle return to idle, should not exceed 86 dba at 50 feet to the left side of the vehicle. Measurements are to be determined using the "fast response" setting on a suitably calibrated sound meter.
9. Safety helmets for both driver and co-driver conforming to 1970 or later Snell standards.
10. All vehicles must be equipped with, and all competitors must use, occupant restraint systems as specified in Appendix Y of these Rules.
11. Proper fuel containers. No gasoline other than that carried in the fuel tanks shall be carried in any vehicle. No fuel tanks of any type may be fitted in or encroach upon the passenger compartment.
12. A laminated safety glass front windshield.
13. Other items necessary to insure a safe vehicle, such as properly adjusted wheel bearings, absence of fuel leaks, secureness of battery, seats and equipment in passenger compartment, etc.

In addition, each car must have aboard, in an accessible location, the following items of safety equipment:

A. First-aid kit (Johnson & Johnson Auto First Aid Kit or equivalent)
B Minimum of ten 15-minute road flares. A requirement for DOT reflective triangles as a substitute for flares may be imposed by organizers running in areas where local conditions prohibit the use of flares.
C. Fire extinguisher of at least 5 B:C rating or equivalent
D. Tow rope

The entrant of any car initially failing to meet the requirements prescribed by the rally committee shall be given reasonable opportunity to remedy the deficiency and to resubmit the car for inspection as the committee may direct.

9. INSURANCE

An SCCA National Pro Rally and its conducting Region shall comply with the insurance requirements of the SCCA as outlined in the SCCA Operations Manual, Insurance Guide and amendments thereto, copies of which are in the possession of each Regional Executive.

The driver (or owner) of a car participating in an SCCA Pro Rally which is involved in an accident resulting in personal injury or vehicle or property damage must obtain an SCCA Accident Report form from the rally committee or SCCA National Office, complete and file the report within 10 days of the accident.

10. SUPPLEMENTARY REGULATIONS

Each SCCA National Pro Rally shall have supplementary regulations covering areas not specified in these Rules and which may add to rules contained herein.

The supplementary regulations for an SCCA National Pro Rally shall contain all rules and regulations governing the rally, together with detailed data concerning timing and scoring procedure, penalties, awards and shall provide other information essential to the contestant's understanding of the event, and specifically stressing route-following and time bars used, if any. They shall also contain a glossary of terms used in the event. They shall also contain a complete description of safety procedures and flare usage as specified by the Pro Rally Board. Supplementary regulations shall also describe all the requirements and limitations on service crews.

Supplementary regulations shall be mailed by first class mail to all entered drivers and co-drivers, a minimum of 15 days prior to the event.

11. ELIGIBLE EVENTS

In order for an event to be eligible for National Pro Rally series sanction, it must meet the following standards:

11.1 Speeds

Maximum speed assigned to any section will be at least 10 percent under the maximum legal limit of the state through which the rally runs.

Any stage road on which traffic will be controlled for the duration of the rally may have a zero target time assigned for scoring purposes.

11.2 Length

The minimum overall length of a National Pro Rally is 250 miles. There must be a minimum of 75 miles of stages.

11.3 Description

The Pro Rally Board requires that events in the National Pro Rally Championship series follow a stage rally format. Experience has shown that this type of event fulfills the National Pro Rally series purpose and is quite popular with contestants.

The stage format is a series of short driver's sections connected by a series of low speed transit runs.

11.4 Route Book

A. All National Pro Rally events must use a standard five-column format for instructions in the route book. The columns must contain:

1. Timing information, such as elapsed time allowed for transit runs, target times or maximum times for stages;
2. Overall official mileage from the start of the rally or the last point at which the official mileage was zeroed;
3. Interval official mileage from the preceding instructions;
4. A map diagram (tulip or alpine) showing the correct route at all instructed intersections;
5. Other information as appropriate (worded instructions are recommended; confirming signs, landmarks and special instructions may also be included here).

B. Mileage to the nearest 0.01 mile shall be given at each action point (every instruction) exactly describing the route. Where appropriate, further confirming instruction shall be given at all action points. The object of the National Pro Rally series is to offer driver challenge—course following is to be as easy as possible.

11.5 Controls

A. All Controls must be noted in the route book, except Observation Controls which must not be referenced in the route book.

B. All National Pro Rally events must use four control types as defined below:

1. Main Time Controls
   Must be used at the start and finish of the rally and at all locations where a time-of-day restart is given. There are two types:
   a. An Out Main Time Control is used to start each section. Contestants approach the control in the minute preceding their out minute and are given their timing sticker at the exact out time. The timing sticker contains an out time but no in time.
   b. An In Main Time Control is used to end each section. Contestants may arrive early and request the correct minute. The control crew will give the contestants any minute requested if that minute has not already passed. The timing sticker contains an in time, but no out time.
2. Start Controls
   Start Controls must be used at the start of each special stage. Contestants must have a proper minute to arrive at these controls from an out time given at the preceding Main Time Control, Finish Control or Route Control. Although contestants may stop within sight of these controls, they must be timed in when they cross the timing line of such a control. Such in times will be scored to the minute; however, it is recommended that

times still be given to the second or hundredth of a minute to aid in resolving timing disputes at the end of the event. All Start Controls must give not only an in time, but also an out time at which the contestant will be started on the stage. This out time must be two minutes after the in minute unless this would result in two or more cars being given the same out minute. In such cases, the second car would be given three minutes and so on. Provisions must be made for co-drivers to walk up to the control to get their in time when any situation occurs that blocks the control and prevents competitors from driving across the timing line.

3. Finish Controls
   Must be used at the finish of each special stage. Contestants must be timed to the second or hundredth of a minute as they cross the timing line and then have adequate distance to stop safely at the timing car. The control must be laid out and staffed in such a way that contestants do not have to leave their cars in order to get their timing stickers. All contestants must be given an out time from the control that is two minutes after their in minute unless this would result in two or more cars being given the same out time. In such cases, the second car would be given three minutes and so on.

4. Observation Controls
   Must be used to check for contestant violations of state laws (especially speeding) in transit sections, contestants use of "pace notes" in special stages and other violations of regulations. When used to check for speeding viloations, the contestants may be timed over a known distance from the preceding control; however, the use of radar is to be preferred if available. When used to check for "pace notes," it should be located coincident with a Finish Control, or ideally it would be placed within a stage, although this would necessarily result in that stage being discarded. In any

event, some type of sticker must be given out at all Observation Controls to verify the contestants' passage.

C. Route Controls are optional for National Pro Rally events, but may be used without a sanction exception being required. This type of control is located within a transit section and effectively divides the transit section into two parts. Its purpose is to control service time and contestant speeding in transit sections containing a service area. If a service area is located in the middle of a transit section, a Route Control can be placed at the beginning of the service area and another at the end. Then, with an elapsed time from the preceding Finish Control to the first Route Control, another elapsed time from the first Route Control to the second (perhaps 10 minutes for 1 mile), and yet another elapsed time from the second to the next Start Control, the contestants' speed can be more positively controlled. If the service area can be located a short distance after the preceding stage, the Finish Control can also serve the purpose of the first Route Control mentioned above. Then only one Route Control will be needed at the end of the service area. A less desirable alternative is to place the service area immediately before the next stage, in which case a Route Control will only be needed at the beginning of the service area. In any event, Route Controls should time all contestants in to the hundredth of a minute (although only the minute will be scored) and assign out times that will normally be two minutes after the in minute.

D. No other types of controls may be used without a sanctioned exception being granted.

E. Each control shall be equipped with at least two accurate time pieces.

F. Each event shall have at least one Observation Control for the purpose of determining if competitors' cars are adhering to state motor vehicle codes. At least one additional Observation Control must be provided to check for the

presence of pace notes in competing cars. Competing cars determined to have violated these Rules shall be disqualified.

11.6 Scoring

For the purpose of scoring in the series championship standings, all cars are to compete in one class. Organizers of individual events, however, are encouraged to offer additional awards, such as for displacement winners, novice awards, etc. Contestants that miss any scored control shall be considered as non-finishers (DNF).

11.7 Starting Order

The starting order for entrants on all National Pro Rally events must be determined by a seeded draw. The time, place and method of draw must be stated in the event's supplementary regulations. The first three seed groups are mandatory; and a listing of all competitors qualified for these groups will be provided to each organizing committee by the SCCA Rally Director.

The qualifications required for each of these groups are as follows:

FIA Seed—FIA Internationally-seeded drivers

Seed 1—Drivers having accumulated 300 or more seeding points during the last 36 months

Seed 2—Drivers having accumulated 100 or more seeding points during the last 36 months.

Seeding points can be earned on an FIA-listed rally, SCCA National Pro Rally or CASC (Canadian) National Rally. Only a driver's best five finishes in a 36-month period will be counted. Drivers earn points by finishing position as follows:

1st overall— 100 points	4th overall—50 points
2nd overall— 80	5th overall—40
3rd overall— 60	6th overall—30

Competitors are responsible for providing the SCCA Rally Director with evidence of points earned on events held outside of the United States. U.S. residents must be members of

SCCA to be placed in Seed 1 or Seed 2 of the Seeded Drivers List. Seeding points will be awarded to U.S. resident competitors who are SCCA members at the time of competition and to Canadian resident competitors.

The list for Seeds 1 and 2 will be updated on November 15, February 15, May 15, and August 15. These revisions will apply to Pro Rallies run in the first, second, third and fourth quarters of the year, respectively.

11.8 Awards

The distribution of awards must be stated prior to the running of the event. Awards will be given to at least the top five places or 10 percent of the starting field, whichever is greater.

Separate awards shall be given to at least the top two places or 10% of the starting field, whichever is greater, in the Production Class. Production Class competitors are eligible for overall event awards and other awards available to Open Class competitors.

11.9 Course Closing

Each National Pro Rally shall utilize at least one sweep vehicle for purposes of assisting competitors and to assist in control closing.

11.10 Results

Official results shall be mailed to all entrants, both driver and co-driver. These results must include a break down of leg-by-leg results in addition to totals, for all contestants, finishers and non-finishers.

Complete provisional control-by-control scores shall be posted for all finishers not more than two hours after the arrival time of the last finisher at the last control. These scores must be made official within four hours after the arrival of the last finisher at the last control. If the deadlines of the above are not met, the results remain provisional and shall be mailed to all contestants within 15 days of the event. Such results become official 21 days after the event unless a claim has been filed.

Once the results have been properly declared official they may not be changed, even if an error should later be discovered.

11.11 Practice and Pace Notes

Route instructions shall not be issued so far in advance as to permit any competitor to practice any part of the route except the odometer check. All competitors shall be given their instructions an equal amount of time before they are due to start the portion of the rally to which they apply.

Practicing in the area of an event shall be banned for a period of 90 days prior to each National Pro Rally. The penalty for violation of this regulation shall be a mandatory one year suspension of the competitor's FIA and/or National Pro Rally License.

Pace notes shall be banned on National Pro Rallies and each event shall be required to conduct at least one control to check for the presence of pace notes in competing cars. The penalty for violation of this regulation by competitors, upon finding pace notes in their car, shall be a mandatory six-month suspension of their FIA and/or National Pro Rally License.

12. ANNUAL NATIONAL PRO RALLY SERIES CHAMPIONSHIPS

12.1 Driver and Co-Driver

Each year the SCCA shall recognize National Pro Rally series champions in two categories which shall be known as Driver and Co-Driver. If nine or more events are sanctioned and run, the championship shall be determined on the basis of points earned in the best five of the first seven sanctioned events the competitor enters for Championship points, and is classified as a starter. If eight or less events are sanctioned and run, the competitor will count the best four of the first six events he starts.

SCCA members may enter any National Pro Rally without having the event included in those counting for championship points by advising the Rally Director at the National Office via certified mail, postmarked not later than the event's published entry closing date or if no closing date is

published, not less than three days prior to the start of the event, that: "The undersigned individual(s), entrant(s) in the Rally, is (are) not competing in the event for National Pro Rally Championship series points." Lacking such notification, entrants will be deemed competitors for points in any event entered. Notification may not be revoked.

In case of ties in final point standings, they will be resolved according to each competitor's record of first-place finishes, then if necessary, the number of second-place finishes, then if necessary, the number of third-place finishes, and so on, down to 25th position. Only events entered for Championship points will be considered.

Points shall be awarded to both Driver and Co-Driver of each starting vehicle based on the vehicle's overall finishing position as follows:

Position	*Points*	*Position*	*Points*
1	100	14	13
2	80	15	12
3	60	16	11
4	50	17	10
5	40	18	9
6	30	19	8
7	20	20	7
8	19	21	6
9	18	22	5
10	17	23	4
11	16	24	3
12	15	25	2
13	14	26 or lower	1

Points earned in one category are not transferable to the other category. Production Class competitors are eligible for points earned according to overall finishing position. Contestants who are not regular members of the SCCA or who do not finish the event will be awarded no points. The Pro Rally Board shall determine annually the number of national awards to be presented to the National Pro Rally competitors

in each category. These awards shall be presented at the next SCCA Annual Convention.

Official results shall be mailed to all contestants and the SCCA Rally Director within 15 days after completion of the competitive portion of the rally. To be official, results must contain leg-by-leg scores as well as positions earned.

12.2 Manufacturer

There shall be a competition for all automobile manufacturers, domestic and foreign, in all National Pro Rallies. The winner shall be the marque compiling the highest total points in these rallies. National Pro Rally Manufacturer points shall be scored 100, 80, 60, 50, 40, 30, except that only the best-placed car of each marque receives points.

In case of ties in final point standings, they will be resolved according to each marque's record of first-place finishes, then if necessary, the number of second-place finishes, then if necessary, the number of third-place finishes, and so on, down through sixth place.

13. CLAIMS AND APPEALS

All claims concerning an individual event shall be settled by a committee made up of three. The claims committee shall consist of one member of the organizing committee, an Event Steward appointed by the Pro Rally Board or its designated authority, and one contestant chosen by the Event Steward. The procedure to write and collect claims will be outlined in the event's supplementary regulations.

Claims submitted for situations arising on the route or checkpoint procedures must be submitted within one hour of the contestant's in time at the final Main Time Control. This Main Time Control must be located near the point at which claims are to be turned in. Claims prompted by the posting of provisional scores shall be submitted within 15 minutes of the posting of those scores and must be based upon information contained in those scores. Any claim filed as a result of provisional scores brought about by failure of organizers to meet the deadlines established in Rule 11.10 must be submitted within four days after the receipt of such results and must be based upon information contained in those results. Claims

must be submitted on the Official SCCA Claim Form and be accompanied by a $15 fee in cash. The fee shall be returned if the claim was submitted in good faith, regardless of its disposition. All decisions of the claims committee must be reduced to writing and a copy of the written answer must be given to the claimant.

There shall be no appeal procedure available to either contestants or organizers.

The Event Steward shall choose one contestant and two alternates to serve on the claims committee. The alternates are to substitute in case of the unavailability or involvement in a claim by the designated claims committee member. The Steward, the claims committee member and the alternates all shall be announced prior to the event.

14. CONDUCT OF CONTESTANTS

14.1 Required Conduct

Every contestant shall conduct himself in a gentlemanly and sportsmanlike manner at all times during an SCCA National Pro Rally in his dealings with the public, with other contestants and with members of the rally committee.

14.2 Charges

Any contestant charged with an offense under this Article shall be fully appraised of the charges and afforded an opportunity to answer them in writing to the Pro Rally Board.

14.3 Discipline

Any contestant so charged who in the Pro Rally Board's judgment is guilty of ungentlemanly or unsportsmanlike conduct or other reprehensible behavior shall be disciplined by the Board. Discipline shall take such of the following forms as the Board may deem to be commensurate with the nature and gravity of the offense:

A. A private letter of warning shall be written by the Pro Rally Board to the offending contestant setting forth his breach or breaches of conduct and cautioning him

that any further act detrimental to the best interests of the sport will result in sterner disciplinary action; or

B. A letter of censure shall be issued, with or without notice to the SCCA membership, setting forth his breach or breaches of conduct and censuring him for conduct detrimental to the best interests of the sport. Any further offense of the same or a similar nature shall automatically result in his disqualification from further participation in SCCA Rallies for a period of one year from the date of the latest offense and in forfeiture of his standing in the championship competition for that year; or

C. Suspension from the SCCA Rally program up to a period of one year from the date of the offense; or

D. The Pro Rally Board shall recommend to the Board of Governors that the offender be dropped from membership in SCCA for gross misconduct detrimental to the interests of the Club.

15. EVENT STEWARD

The Event Steward shall be a voting member and chairman of the claims committee (see Section 13 above). At the completion of the event, the Event Steward shall file a comprehensive report with the SCCA Rally director on all aspects of the event.

16. STAGES

A stage is an elapsed time segment of the route intended to maximize the challenge to the driver within the average speeds permitted by these Rules. The definition of a stage and its regulations are given below.

A. The stage must be identified in the route instructions, with mileage for the start and finish control.

B. Competitors shall be allowed to start the stage at the 00 second mark of their Time Out Minute.

C. Competitors shall start the stage on separate minutes.

D. There shall be no uncontrolled intersections within the stage.

E. There shall be no habitation within the stage unless the occupant has consented.

F. The road chosen as the stage shall be of such a nature that it is virtually impossible to sustain a speed in excess of the legal maximum speed and shall be suitably marked to prevent incorrect course.

G. During stages both driver and co-driver must properly wear the helmets and restraint systems required in Article 8 and the windows in driver and passenger doors must be rolled up. Window safety nets may be used in lieu of having windows rolled up on stages.

H. Finish controls of stages shall be set up in such a manner that the contestant is not required to leave his vehicle in order to receive an in-time.

APPENDIX A

PRODUCTION CLASS RULES

DEFINITION

The purpose of the Production Class is to provide an opportunity for ralliests to compete in SCCA National Pro Rallies utilizing automobiles whose preparation is limited to improving the safety and reliability. There shall be no guarantee or commitment that cars selected for the Production Class will be recognized beyond the current year, or that all eligible vehicles can, or will be, equally competitive.

AUTOMOBILE ELIGIBILITY

Unless otherwise stated in the Pro Rally Rules, cars selected shall be standard models as sold in the U.S. with no options. (Canadian entrants may use models available in Canada.) Selected cars shall be the current model year and previous five model years. No updating or backdating of cars, models, and/or components is permitted. Additions or deletion of automobiles shall be at the discretion of the SCCA Pro Rally Board.

SAFETY EQUIPMENT

All cars must be equipped with the safety equipment required for Open Class cars and must pass the same safety inspection. Roll bars and roll cages must be contained entirely within the driver/passenger compartment.

VEHICLE PREPARATION

The only work authorized is normal maintenance or the replacement of parts damaged through wear or accident and the modifications explicitly authorized hereafter. Except for what is explicitly authorized, any part damaged through wear or accident may only be replaced by an OEM part identical to the one damaged. All original equipment must be intact, unmodified and functioning according to the manufacturers specifications unless modifications are specifically authorized in the following paragraphs.

AUTHORIZED MODIFICATIONS

1. Lighting Devices

All lighting and signaling devices must comply with the legal requirements of the state or province of registration.

Freedom is granted with regard to the headlight frontal glass, the reflector and the bulbs. The mounting of not more than four additional headlights is authorized. A headlight shall be considered as any lighting device throwing a beam towards the front (dipped-beam, long-range lamp, anti-fog lamp). The fitting of reverse-lights is authorized provided it will only switch on when reverse gear is engaged.

The mounting of maneuverable search-lights is prohibited.

2. Cooling System

If, for the same model, radiators of different capacities are normally offered, they may be used. The addition of a radiator screen is authorized. The make and type of thermostat are free.

A single engine oil cooler and necessary fittings may be added.

3. Induction

The carburetor(s) or fuel injection normally mounted on the recognized model may not be changed or removed. The elements which control the quantity of fuel fed into the engine may be changed, but not those which control the quantity of air.

4. Exhaust

The exhaust system is free, except that the stock exhaust manifold(s) must be retained, the pipe(s) must exit behind the driver and external to the body, and the noise level must not exceed 86 dba when measured at 50 feet to the left of the vehicle during stationary engine run-up to 4000 rpm, momentary hold and closed throttle return to idle.

5. Electrical Equipment

If, for the same model, alternators of different capacities are normally offered, they may be used.

The original battery may be replaced by another commercial

automobile unit of equal or larger capacity provided that the location remains unchanged. The make is free.

6. Gearbox

If, for the same model, different gearboxes are normally offered, they may be used.

7. Final Drive

If, for the same model, different final drive ratios are normally offered, they may be used. The use of limited slip differential units is prohibited, even if offered by the manufacturer.

8. Shock Absorbers

The make and type are free. However, no addition is allowed and neither their original purpose nor their number may be modified. The original supports may be reinforced but not otherwise modified.

9. Suspension

The standards suspension components and mounting points may be reinforced. The material and dimensions of the spring are free except that it must be located in the standard position and fit the standard mounting points. The standard spring mounting points may be reinforced.

10. Wheels and Tires

Wheels must be those provided by the manufacturer for the model. Tires must be standard production, D.O.T. approved and generally available to the driving public through normal retail outlets. Mud flaps of flexible material, which do not improve the aerodynamics of the vehicle, may be added both in front of and behind the tires. Hub caps and wheel trim rings may be removed.

11. Brakes

The replacement of worn linings is authorized and their system of attachment is free, provided the dimensions of the friction surface remains unchanged. The material of the linings is free.

Servo-assistance and pressure limiting valves are only

permitted when standard or a manufacturers regular production option for the model. If servo-assistance is standard, the servo device may be disconnected.

12. Clutch

The material and method of attachment of the clutch linings are free.

13. Supplementary Accessories

Supplementary accessories are authorized without restriction provided they have no influence whatsoever on the behavior of the car, such as those concerning the aesthetics or the inside comfort (lighting, heating, radio, etc.), or those enabling easier or safer driving of the car (speed pilot, windshield washer, etc.) provided they do not affect, even indirectly, the mechanical performance of the engine, the steering, the transmission, the road holding and the braking.

The following is authorized:

a) Nuts and bolts may be freely exchanged and locked by any means.
b) The mounting of additional gauges, meters, etc.
c) The horn may be changed or an extra one added—at the disposal of the co-driver if wished.
d) Extra relays, switches, wiring, and fuses may be added to the electrics.
e) The original accelerator cable may be replaced by another one whether supplied or not by the manufacturer.
f) The luggage boot may be adapted for better accomodation of the equipment carried (straps for fixing of a tool box, additional spare wheel, etc.) The attachment system of the original spare wheel may be altered provided its original location is not changed.
g) Filler caps may be locked by any means.
h) The steering wheel is free.
i) The addition of protection for the engine sump, transmission, fuel tank and all fluid lines is permitted.

14. Coachwork

None of the normal elements of the coachwork (dashboard, all inside quiltings whatever their location), and none of the accessories normally mounted by the manufacturer on the lowest priced model may be removed or replaced. However, the modifications derived from the fitting of the supplementary accessories authorized in the preceeding paragraphs, such as those necessitated by the addition of a windshield washer (drilling of a hole into the hood) will be allowed.

Transparent parts must, in case of damage, be replaced by others identical in all respects to the original one.

Carpets and their associated padding may be removed.

The front seat(s) may be replaced with any suitable seat(s).

Standard seat/shoulder belts may be removed. The glove box door may be removed or replaced.

15. Consumable Items

The replacement of normally consumable items (oil filters, air filters, spark plugs, fan belts, etc.) with others of equivalent OEM specifications is permitted. Spark plug heat range is free.

16. Tolerances

All adjustments/machining must be at the manufacturers specification and/or within the manufacturers specified tolerances. Overboring for the use of oversize pistons is prohibited.

17. Shop Manual

Each entrant must have an official factory shop manual for his vehicle at every event and present same at scrutineering. The manual must also be made available in case of any protests.

PROTESTS

Protests against legality will be accepted as described in Section 13 of the Pro Rally Rules. However, the burden of proof of non-stock condition lies with the protestor.

ELIGIBLE VEHICLES—1979 Season

AMC Gremlin & Gremlin "X", 232, 258, 3-speed
AMC Gremlin 121, four-cylinder, 4-speed
AMC Pacer & Pacer "X" 258, 3-speed
Audi Fox 1588, 2- & 4-door
Austin Marina, Marina GT
Buick Opel Isuzu, standard & deluxe models
Buick Skyhawk 231
Chevrolet Chevette, Rallye, 1.4, 1.6
Chevrolet Monza 2300, 2+2, Town Coupe, 4-speed
Chevrolet Vega 140, 140 GT, 4-speed
Chrysler Omni, Horizon
Chrysler Saporo, Challenger
Datsun 200-SX
Datsun B-210, All models
Datsun F-10, 2-door sedan
Datsun 510, 1978, 1979
Datsun 610, all models except station wagon
Datsun 710, all models except station wagon
Dodge Colt 1600, 2-door & 3-door & 2-door hardtop
Dodge Colt 2000, 4-speed
Fiat 124 Sport Spider
Fiat 128 Sedan, SL 3P
Fiat 131, 2- & 4-door
Fiat X 1/9
Ford Capri V-6, II 4-6
Ford Capri II, 2300
Ford Fiesta
Ford Mustang 2300 II, Mach I, Cobra II
Ford Pinto 2300, Pinto Stallion, sedan, hatchback
Honda Accord
Honda Civic, CVCC, all models & engines, 4- & 5-speed
MGB, B/GT
MG Midget 1500
Mazda 808 1600, 2-door
Mazda GLC
Oldsmobile Starfire V-6
Opel 1900 Sedan, Manta, Manta Rallye

Plymouth Arrow, Arrow GT, 4- & 5-speed
Plymouth Arrow 1600 & GT
Pontiac Astre 2300, 2475, Astre SJ, 4-speed
Pontiac Sunbird 2300, 2475 two-barrel, 4-speed
Renault 5 TL, GTL
Renault 12 TL, GTL
Saab 99 LE, GL
Subaru, 4- & 5-speed, all models except station wagon
Toyota Celica ST, GT, GT Liftback
Toyota Corolla, 4- & 5-speed, all models except station wagon
Toyota Corona, 4- & 5-speed, all models except station wagon
Triumph Spitfire 1500
Triumph TR7
Volkswagen Beetle, Super Beetle
Volkswagen Dasher, 2- & 4-door (1471) & (1588)
Volkswagen Rabbit, all models (1471) & (1588)
Volkswagen Rabbit, Diesel
Volkswagen Scirocco (1471) & (1588)
Volkswagen Super Scirocco, 1976 fuel-injected
Volvo 140 series, all models except station wagon

APPENDIX Y
OCCUPANT RESTRAINT SYSTEMS

All vehicles in SCCA-sanctioned Pro Rallies must be equipped with a four-, five- or six-point restraint harness meeting the specifications below for both the driver and co-driver. These restraints must be worn at all times when the vehicle is traversing a special stage. The use of at least the lap portion is required at all other times during the event.

1. Six-Point System

A six-point system is recommended for use in all automobiles and is required in those automobiles in which the seating position is semi-reclining (seat back angle exceeds 35 degrees from vertical). It consists of a lap belt, a shoulder harness and two leg or anti-submarine belts. The minimum nominal width on all portions of the system is two (2) inches.

2. Five-Point System

A five-point system is permitted for use in vehicles with upright seating. It consists of a lap belt, a shoulder harness and a single anti-submarine belt. The nominal width of the lap belt is three (3) inches and two (2) inches for the remainder of the system.

3. Four-Point System

A four-point system is permitted for use in vehicles with upright seating. It consists of a lap belt and a shoulder harness. The nominal width of the lap belt is three (3) inches and two (2) inches for the shoulder harness.

4. Material

The material of all straps shall be nylon or dacron polyester in perfect condition. The buckles must be metal-to-metal quick release type.

5. Shoulder Harness

The shoulder harness shall be a two-strap over-the-shoulder type. There shall be a single release common to the lap belt and shoulder

harness. Either completely separate upper shoulder straps or a Y-type harness is permitted. If a Y-type is used, the junction point shall be at least six (6) inches behind the neck.

The shoulder harness angle to the first structural point of support shall not be below a line drawn perpendicular to the seat back from the top of the occupant's shoulder. If the seat does not provide lateral restraint, the mounting point on the vehicle structure shall be at least 18 inches behind the seat back when measured along the belt.

6. Lap Belts

The lap belt angle shall be between vertical and 45 degrees.

7. Anti-Submarine Strap

The double leg straps of the six-point system may be attached to the vehicle structure or to the lap belt so that the occupant sits on them, passing them up between his legs and attaching them with metal-to-metal connection to the single release common to the lap belt and shoulder harness. Alternatively, it is permissible, but not recommended, to attach the leg straps to the floor forward of the seat cushion.

The single anti-submarine strap of the five-point system shall be attached to the floor structure of the car and have a metal-to-metal connection with the single release common to the seat belt and shoulder harness.

8. Mounts

All mounts must be capable of withstanding at least 3,000-pound dynamic load without failure. In cases where reinforcing plates are used on thin sheet metal, such as the floor, they must be securely attached to the sheet metal to prevent a "can opener" type failure of the mount. Weave through (ladder type) brackets must not be subjected to a bending load. All bolts must be ⅜-inch diameter SAE Grade 5 or better.

APPENDIX Z

ROLL BARS

These specifications are mandatory and represent minimum requirements. Specific installations are subject to approval by the Technical and Safety Inspector at each event.

A. Basic Design Considerations

1. The basic purpose of the roll bar is to protect the driver if the car turns over or is involved in a serious accident. This purpose should not be forgotten.
2. The top of the roll bar must be a minimum of two inches above the top of the driver's helmet when the driver is sitting in normal driving position (as near the roof as possible on closed sedans) and shall not be more than six inches behind the driver.
3. The roll bar must be designed to withstand compression forces resulting from the weight of the car coming down on the roll structure, and to take fore-and-aft loads resulting from the car skidding along the ground on the roll structure.
4. The two vertical members forming the sides of the hoop shall not be less than 15 inches apart inside dimension. It is recommended that the roll bar extend the full width of the cockpit to provide maximum bearing area.
5. A system of head restraint to prevent whiplash and to prevent the driver's head from striking the underside of the roll bar must be installed on all vehicles. The head restraint should be capable of withstanding an impact of 200 lbs. in an aft direction.

   It is recommended that a headrest of approximately 36-square inch area with a resilient padding two inches thick be used.

   It is mandatory that any portion of the roll bar or bracing which might be contacted by the driver's helmet shall be covered with styrofoam or other energy-absorbing material (high density), to a minimum thickness of one inch. The energy absorbing material must be covered by duct tape or similar protective wrapping. The padding need not be installed where side or forward vision is restricted.
6. No portion of the safety roll bar/roll cage shall have an aerodynamic effect by creating a vertical thrust.

B. Material

1. The roll bar hoop and all braces must be seamless, ERW or DOM mild steel tubing or chrome molybdenum alloy steel such as SAE 4125 or SAE 4130. It is recommended that mild steel tubing be used as chromium alloys present difficulties in welding and must be normalized to relieve stress. Proof of the use of alloy steel will be the responsibility of the entrant.
2. For the purpose of determining tubing sizes, the Vehicle Weight is without driver. The size of the tubing shall be determined as follows:

Vehicle Weight	ROLL BAR		ROLL CAGE	
	Mild Steel	Alloy Steel	Mild Steel	Alloy Steel
Under 1500#	1.5 x .120	1.375x .090	1.5 x .102	1.375x .090
1500#-2500#	1.75x .120	1.625x .102	1.5 x .120	1.5 x .090
Over 2500#	2.25x .120	2.00 x .102	1.75x .120	1.625x .090
Note: See alternate tubing sizes & diagrams at end of Appendix Z.				

An inspection hole of at least 3/16 inch diameter must be drilled in a non-critical area of the roll bar hoop to facilitate verification of wall thickness.

Where bolts and nuts are used, the bolts shall be at least ⅜ inch diameter SAE Grade 5 or equivalent aircraft quality.

C. Fabrication

1. One continuous length of tubing must be used for the hoop member with smooth continuous bends and no evidence of crimping or wall failure. It is recommended that the radius of the roll bar hoop be such that the minimum outside width measured at a point four inches below the uppermost point is 12 inches.

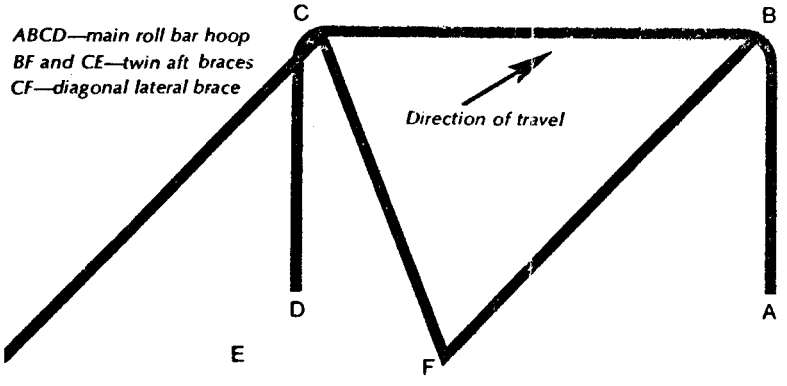
Whenever possible the roll bar hoop should start from the floor of the car and, in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs in order to distribute the loads.

2. All welding must be of the highest possible quality with full penetration. Arc welding, particularly heliarc, should be used wherever possible. The welds should be inspected by magnaflux or dye penetrant after fabrication. Alloy steel must be normalized after welding.

D. Bracing

1. Full cockpit width (two seats) roll bar hoops must have two fore/aft braces with tubing of dimensions at least equal to that required for the hoop itself. Diagonal lateral bracing of equal dimension tubing must be installed to prevent lateral distortion of the hoop. (In most cases, a lateral brace from the bottom corner of the hoop on one side to the top corner of the hoop on the other side is sufficient.)

   The following alternates are permitted: Although installing the diagonal lateral brace in the main hoop is the strongest (and hence most preferable) alternative, there may be instances where such an installation is not practical. In such situations,



the installation of the diagonal brace as shown in the drawing below will be acceptable.

2. Partial cockpit width (single seat) roll bar hoops may have either one fore/aft brace with a minimum dimension equal to the tubing required for the main hoop or two fore/aft braces with a minimum dimension of 1.0 x .090 inches mild steel or alloy steel.
3. The bracing must be attached as near as possible to the top of hoop but not more than six inches below the top of the hoop and at an included angle of at least 30°. If a single brace is used, it must be attached at the top of the main hoop.
4. If the fore/aft bracing must be removable, the connection between the roll bar hoop and the brace-rod must be of the double lug type fabricated from material at least 3/16 inch thickness and welded through a doubler or gusset arrangement to avoid distortion or excessive strains caused by welding. (See diagrams below.)

   It is recommended that the fore/aft brace be attached to a rear chassis member through a double lug connection. If attached to the engine, it must mount to a major component such as a head stud or combination of head studs.

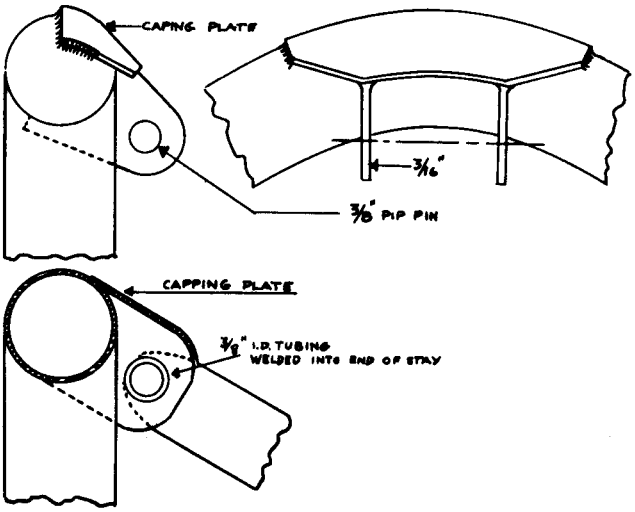
E. Mounting Plates

1. Roll bars and braces must be attached to the frame of the car wherever possible. Mounting plates, regardless of whether welded or bolted to the frame, must be at least 3/16 inch thick.
2. In the case of cars with unitized or frameless construction, or cars with frames where frame-mounting of the roll bar is impractical, mounting plates must be used to secure the roll bar structure to the floor of the car. The important consideration is that the load be distributed over as large an area as possible.

   Mounting plates bolted to the structure shall not be less than .1875 (3/16) inch thick with a back-up plate of equal size and thickness on the opposite side of the panel with the plates through-bolted together.

   Mounting plates welded to the structure shall not be less than .080 inch thick. Whenever possible the mounting plate should extend onto a vertical section of the structure such as a door pillar.

REMOVABLE ROLL BAR BRACES
ATTACHMENT DETAILS



F. Removable Roll Bars

Removable roll bars and braces must be very carefully designed and constructed to be at least as strong as a permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion must fit tightly and must bottom on the permanent mounting, and at least two bolts must be used to secure each such joint. The telescope section must be at least eight inches in length.

G. Installation on Cars of Space Frame and Frameless Design

1. It is important that roll bar structures be attached to cars in such a way as to spread the loads over a wide area. It is not sufficient to

simply attach the roll bar to a single tube or junction of tubes. The roll bar must be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame. Considerable care must be used to add as necessary to the frame structure itself in such a way as to properly distribute the loads. It is not true that a roll bar can only be as strong as any single tube in the frame.

2. On cars of frameless construction, consideration should be given to using a vertical roll bar hoop of 360° completely around the inside of the car, and attached with suitable mounting plates. This type of roll bar then becomes a substitute for the frame.

H. Roll Cages

1. It is recommended, but not mandatory, that all cars utilize a roll cage type of construction.
2. The main roll bar hoop must extend the full width of the driver/passenger compartment and must be a minimum of two inches above the top of the driver's helmet with the driver sitting in normal position, or as near the roof as possible in closed cars, and shall not be more than six inches behind the driver. The size and material of tubing shall be determined from Table B.2. The fabrication and bracing on this hoop must be as specified in C. and D. for roll bar hoops.

   A similar hoop must be in front supporting the front pillars, with horizontal bars connecting the front hoop to the main hoop, at each side of the top. The material of this tubing shall be at least 1.5 x .102 inches and required bolts and nuts shall be as specified under roll bar requirements.

I. Other Roll Bar Designs

Roll bars and roll cages of alternate material or design may be accepted by the Technical and Safety Inspector upon presentation of data verifying the installation is able to withstand three simultaneously applied loads:

1.5 G Lateral
5.5 G Fore-and-aft
7.5 G Vertical

The induced loads being carried over into the primary structure.

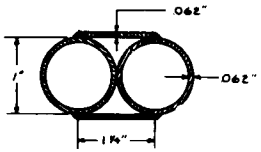
Royal Automobile Club (RAC) certification of alternate designs is acceptable.

J. Alternate Tubing Sizes

Roll bar tubing of an alternate diameter and wall thickness equal to or exceeding the bending strength of those specified in Table B.2 may be used:

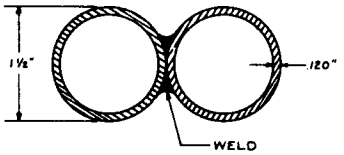
Under 1500 lbs.	Under 2500 lbs.	Over 2500 lbs.
	Fig. 2 (2 each)	
1.375" x 187"	1.50" x .120"	2.00" x .180"
1.625" x .120"	1.50" x .250"	2.125" x .162"
Fig. 1 (2 each) 1.00" x .062"	1.625" x .160"	2.50" x .085"
With (2) 1¼" x .062" strips	1.875" x .088"	

Fig. 1



FRONT/REAR

Fig. 2



FRONT/REAR

CROSS-SECTIONAL
TOP VIEW OF ONE LEG

ROLL CAGES

A. Basic Design Considerations

1. The basic purpose of the roll cage is to protect the driver if the car turns over, runs into an obstacle such as a tree or bridge or is struck by another car. It must be designed to withstand compression forces from the weight of the car coming down on the roll-over structure and to take fore and aft and lateral loads resulting from the car skidding along the ground on its roll-over structure.
2. A system of head restraint to prevent whiplash and prevent the driver's head from striking the underside of the roll bar must be installed on all vehicles. The head restraint must have a minimum area of 36 square inches and be padded with a non-resilient material such as Ethafoam® or Ensolite® or other similar material with a minimum thickness of one inch. The head restraint must be capable of withstanding a force of 200 lbs. in a rearward direction.
3. Forward braces and portions of the roll bar hoop subject to contact by the driver's helmet (as seated normally and restrained by his restraint system) must be padded with a protective padding of non-resilient material such as Ethafoam® or Ensolite® or other similar material with a minimum thickness of one-half inch.
4. No portion of the safety roll cage shall have an aerodynamic effect by creating a vertical thrust.

B. Material

1. Seamless, ERW (electrical resistance welded) or DOM (drawn over mandrel) mild steel tubing (SAE 1010, 1020, 1025) or equivalent or alloy steel tubing (SAE 4125, 4130) (T-45). Alloy steels (proof of which is the responsibility of the entrant) must be normalized to relieve stress after welding. ERW tubing must have the weld to the inside of all bends.

2. An inspection hole at least 3/16 inch diameter must be drilled in a non-critical area of the roll bar hoop to facilitate verification of wall thickness. All bolts and quick release pins must be of a minimum diameter of ⅜ inch SAE Grade 5 or equivalent aircraft quality.

C. General Construction

1. One continuous length of tubing must be used for the hoop member with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll bar hoop (measured at centerline of tubing) shall not be less than 3 times the diameter of the tubing.

   Whenever possible, the roll bar hoop should start from the floor of the car, and in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs to distribute the loads. It is recommended that gussets be used at all joints.

2. All welding must be of the highest possible quality with full penetration and must be done according to A.S.T.M. specifications for the material used. Arc welding, particularly heliarc, should be used wherever possible. Welds should be inspected by magnaflux or dye penetrant after fabrication. Alloy steel must be normalized after welding.

3. Aluminum bronze or silicon bronze welding technique is permitted, but extreme care must be used in preparation of parts before bronze welding and in the design of the attaching joints.

D. Open Cars

1. Minimum tubing sizes for front and main hoops and all required bracing:

Vehicle Weight	Mild Steel	Alloy Steel
Under 1500 lbs. —	1.50" x .102"	1.375" x .102"
1500 to 2500 lbs. —	1.50" x .120"	1.50" x .102"
Over 2500 lbs. —	1.75" x .120"	1.625" x .102"

   For purposes of determining tubing sizes, the Vehicle Weight is without fuel and driver.
2. **The front hoop** may be either a low hoop (below the driver's eye level) near dashboard or a high front hoop (similar to the rear hoop) but without lateral brace.
3. **The main hoop** (behind the driver) may be either the full width of the cockpit or a partial cockpit width (only behind the driver.)
4. **Height** of the two hoops must be so that an imaginary straight line drawn from the top of the main roll bar hoop to the top of the front hoop passes over the driver's helmet when the driver is seated in normal driving position.
5. **Bracing**
   a. Cars with a low front hoop must have two braces extending forward so as to protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet, but in any case, must be integrated into the frame or monocoque so as to provide substantial support for the front hoop.
   b. Cars with a high front hoop (above driver's eye level) must have two braces connecting the front and rear hoops together at each side at the tops of the roll hoops or alternatively use two side hoops following the line of the front door pillars extending upwards above the driver's eye level then bending horizontally to the rear and attaching to the main hoop. These two side hoops must be connected together over the top of the windshield by a tube above the driver's eye level.
   c. The main roll hoop if of full cockpit width, must incorporate a diagonal lateral brace to prevent lateral distortion of the hoop (see drawing No. 7).
   d. The main roll hoop either full cockpit width or partial

cockpit width must have two braces extending forward attaching to the front hoop and two braces extending to the rear attaching to the frame of the chassis.

e. All braces must be attached as near as possible to the top of the main hoop (not more than 6 inches below the top and at an included angle of at least 30 degrees).

f. **Removable bracing**. Any removable bracing must incorporate connectors of the double lug type, tapered connection or muff connection as shown in the accompanying drawings. The double lug type must include a doubler, gusset or capping arrangement so as to avoid distortion or excessive strains caused by welding. (See drawings 1, 2 and 3.)

6. **Mounting plates**. Mounting plates **bolted** to the structure of the car shall not be less than .1875 (3/16) inch thick with a back-up plate of equal size and thickness on the opposite side of the panel with the plates through bolted together. There must be a minimum of 3 bolts per mounting plate. All hardware must be grade 5 or better. Mounting plates **welded** to the structure of the car shall not be less then .080 inch thick. Whenver possible, the mounting plate shall extend onto a vertical section of the structure such as a door pillar.

7. **Side Protection**. The minimum side protection must consist of a horizontal tube not less than 1.50" in diameter x .102" wall thickness connecting the front and rear hoops across the driver's door opening. Additionally, there must also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than 2 horizontal side tubes not less than 1.50" in diameter x .102" wall thickness. Additional tubing may be added.

E. Closed Cars

1. Minimum tubing sizes for front and main hoops and all required bracing:

Vehicle Weight		Mild Steel	Alloy Steel
Under 1500 lbs.	—	1.50" x .102"	1.375" x .102"
1500 to 2500 lbs.	—	1.50" x .120"	1.50" x .102"
Over 2500 lbs.	—	1.75" x .120"	1.625" x .102"

2. Main roll hoop (behind the driver) must extend the full width of the driver/passenger compartment and must be as near the roof as possible. It must incorporate a diagonal lateral brace to prevent lateral distortion of the hoop. (See drawing No. 7.)
3. The front hoop must follow the line of the front pillars and be connected by horizontal bars to the main hoop at each side of the top. Alternatively, two side hoops following the line of the front pillars to the top of the windshield (as close to the roof as possible) then horizontally to the rear attaching to the main hoop. These two side hoops are to be connected together by a tube over the top of the windshield.
4. The minimum side protection must consist of a horizontal side tube not less than 1.50'' in diameter x .102'' wall thickness connecting the front and rear hoops across the driver's door opening. Additionally, there must also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than 2 horizontal side tubes not less than 1.50'' in diameter x .102'' wall thickness. Additional tubing may be added.
5. Bracing
   a. The main roll hoop must have two braces extending forward to the front hoop or forming the uprights of the front hoop (see F. 3) and two braces extending to the rear attaching to the frame or chassis.
   b. All braces must be attached as near as possible to the top of the main roll hoop (not more than 6 inches below the top and at an included angle of at least 30 degrees).
6. **Mounting plates**. Mounting plates **bolted** to the structure of the car shall not be less than .1875 (3/16) inch thick with a back-up plate of equal size and thickness on the opposite side of the panel with the plates through bolted together. There must be a minimum of 3 bolts per mounting plate. All hardware must be grade 5 or better. Mounting plates **welded** to the structure of the car shall not be less than .080'' thick. Whenever possible, the mounting plate should extend onto a vertical section of the structure such as a door pillar.

F. Removable Roll Bars

1. Removable roll bars and braces must be very carefully designed and constructed to be at least as strong as a permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion must fit tightly and must bottom by design, on the permanent mounted tube, and at least two bolts must be used to secure each such joint. The telescope section must be at least eighteeen inches in length. (See drawing No. 4.) Removable bracing sections (compression loading only) may use 3 bolt flange design (minimum thickness 3/16").

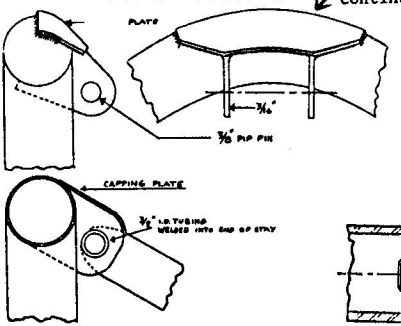
G. Installation on Cars of Space Frame and Frameless Design

1. It is important that roll bar structures be attached to cars in such a way as to spread the loads over a wide area. It is not sufficient to simply attach the roll bar to a single tube or junction of tubes. The roll bar must be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame. Considerable care must be used to add necessary strength to the frame structure itself in such a way as to properly distribute the loads. It is not true that a roll bar can only be as strong as any single tube in the frame.
2. On cars of frameless construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll hoop then becomes a substitute for the frame.

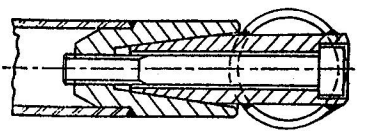
H. Other Roll Cage Designs

1. Roll cages of alternate material or design may be accepted upon presentation of data verifying the installation is able to withstand three simultaneously applied loads: 1.5G Lateral; 5.5G Fore and Aft; 7.5G Vertical. However, tubing sizes for front and rear hoops of less than 1.375" x .080" alloy steel or 1.50" x .120" mild steel will not be accepted. Aluminum and titanium alloy roll cage hoops and bracings are prohibited. This verification must be in the form of a stress analysis certified by a licensed engineering firm that the alternate design complies with the stress criteria based on the starting line weight of the car with fuel and driver.

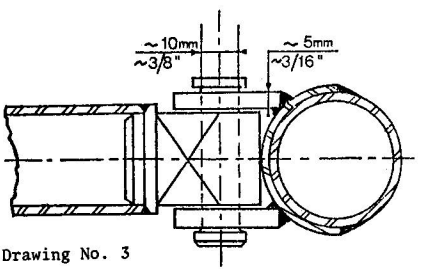
REMOVABLE ROLL BAR BRACES ATTACHMENT DETAILS (upper cap need not be continuous)



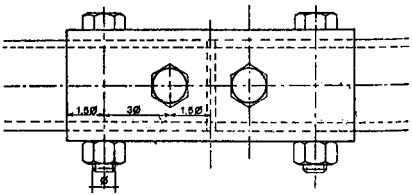
Drawing No. 1



Drawing No. 2



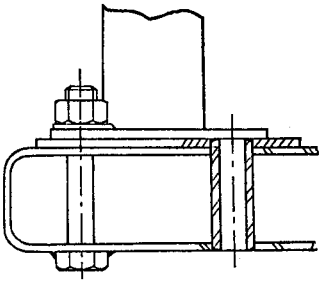
Drawing No. 3



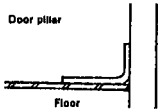
Drawing No. 4

ϕ = 12 mm (tube < 40 mm diam. ext)
14 mm (tube ≥ 40 mm < 50 mm diam. ext)
16 mm (tube ≥ 50 mm diam. ext)

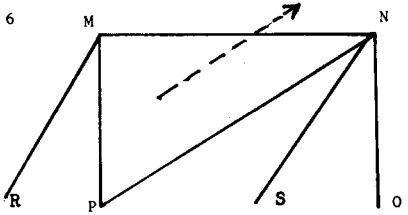
ROLL BAR ATTACHMENT TO
INTEGRAL CHASSIS TYPE OF CAR



Drawing No. 6



Drawing No. 5



Drawing No. 7

The lateral brace must be fitted either from M to O, from N to P, M to S or N to R.

SCCA PRO RALLY LIFETIME STANDINGS

The following SCCA National Pro Rally Lifetime Standings and Classifications have been adopted by the SCCA Pro Rally Board. The standings are based on an individual's placings in the first six overall positions (worth 100, 80, 60, 50, 40 and 30 points respectively) on all of the 50 SCCA-sanctioned National Pro Rallies conducted from 1973, when the SCCA National Pro Rally Championship was established, through and including July, 1978, as compiled by Harry M. Handley. A "☆" indicates Annual Overall Champion, while figures following names indicate number of first overall placings.

GRAND MASTER(2000 or more points)

MASTER(1000-1990 points)

Drivers		**Co-Drivers**	
Hendrik Blok ☆ (5)	1350	Ken Pogue ☆ (7)	1150
John Buffum ☆☆ (12)	1340	Vicki Upjohn ☆☆ (9)	1040
Scott Harvey ☆ (5)	1260		
Gene Henderson ☆ (7)	1150		
John Smiskol (1)	1000		

EXPERT (500-990 points)

Drivers		**Co-Drivers**	
Eric Jones (2)	740	Wayne Zitkus ☆ (4)	900
John Rodgers (5)	700	Erick Hauge ☆ (2)	800
Jim Walker (4)	680	Doug Shepherd (4)	760
John Chalmers	560	Walt Krafft (1)	630
Bob Hourihan (1)	550	Tom Grimshaw (2)	500

SENIOR (250-490 points)

Drivers	
Ralph Brooks (1)	350
Guy Light	320
Roy Donison	270
Guenter Kern (1)	270
Tom Tolles	270
George Beavis	250
Mike Gibeault (1)	250
Sven Halle	250
Gary Ruiz	250

Co-Drivers	
Bill Potvin	380
Janie Rodgers (2)	380
Roger Sieling (1)	380
Carol Smiskol	370
Terry Palmer (3)	360
Ron Richardson (1)	350
Steve Ruiz	320
Erik Brooks (3)	300
Mike Chern (1)	300
Ginny Reese	280
Randy Graves (1)	270
Joe LeBeau (1)	260
Larry Dea	250

SCCA PRO RALLY AWARD WINNERS

DRIVER AND CO/DRIVER

1973 Driver—Scott D. Harvey, Rochester, Mich.
Co-Driver—Wayne J. Zitkus, Toledo, Ohio

1974 Driver—Gene Henderson, Dearborn, Mich.
Co-Driver—Kenneth A. Pogue, Detroit, Mich.

1975 Driver—John Buffum, South Burlington, Vt.
Co-Driver—Vicki Dykema, Shelburne, Vt.

1976 Driver—Hendrik Blok, Los Angeles, Calif.
Co-Driver—Erick Hauge, Sacramento, Calif.

1977 Driver—John Buffum, South Burlington, Vt.
Co-Driver—"Vicki", Shelburne, Vt.

MANUFACTURER

1975 Nissan Motor Corp. in U.S.A. (Datsun)

1976 Nissan Motor Corp. in U.S.A. (Datsun)

1977 Dodge Division, Chrysler Corporation
Nissan Motor Corp. in U.S.A. (Datsun)

PRO RALLY OF THE YEAR

1976 Allegro Northwest Ohio Region, Wayne J. Zitkus, chairman

1977 La Jornada Trabajosa California Sports Car Club Region, Wes Gaede, Chairman

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1967	Frank J. Schmitz	Shawnee Mission, Kan.
1969	Victor T. Wallder	Nutley, N.J.
1971	Ronald W. Jones	Tucson, Ariz.
1972	Kenneth W. Adams	Bakersfield, Calif.
1973	Erhard Dahm	Farmington, Mich.
	Thomas D. Grimshaw	Denton, Texas
1975	Wayne J. Zitkus	Toledo, Ohio
1976	Clyde Durbin	Dallas, Texas

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